

Substitute for form 1449/PTO, based on PTO/SB/08A and 08B

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

Application Number	10/529,409
Filing Date	08/22/2005
First Named Inventor	Gin et al.
Art Unit	1797
Examiner Name	Fortuna, Ana M.
Attorney Docket Number	114-02

Confirmation No. 6759 GWS 2/14/2008

**U.S. PATENT DOCUMENTS**

Examiner Initial*	Cite No. <sup>1</sup>	Document Number (US-)	Publication Date (MM-DD-YYYY)	Name	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear (or entire document unless noted otherwise)
	1	7,090,788	08/15/2006	Elliott et al.	
	2	6,696,113	02/24/2004	Kawata et al.	
	3	6,586,561	06/01/2003	Litt et al.	
	4	6,264,741	07/24/2001	Brinker et al.	
	5	6,054,111	04/25/2000	Antonietti et al.	
	6	5,900,292	05/04/1999	Moriya et al.	
	7	5,849,215	12/15/1998	Gin et al.	
	6	5,670,051	09/23/1997	Pinnau et al.	
	9	5,238,992	08/24/1993	Outubuddin	
	10	5,238,613	08/24/1993	Anderson	
	11	4,614,524	09/30/1986	Kraus	
	12	US2006 0194927	08/31/2006	Gin et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No. <sup>1</sup>	Foreign Patent Document Number (include WIPO country code)	Publication Date (MM-DD-YYYY)	Name	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear (or entire document unless noted otherwise)	T <sup>2</sup>
	13	WO 98/30318	07/16/1998	Gin et al.		

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initial*	Cite No. <sup>1</sup>	REFERENCE Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	14	Beginn et al. (2000) "Membranes Containing Oriented Supramolecular Transport Channels," <i>Adv. Mater.</i> 12:513-516	
	15	Beginn et al. (2000) "Functional Membranes Containing Ion-Selective Matrix Fixed Supramolecular Channels," <i>Adv. Mater.</i> 12:510-516	
	16	Beginn, U. (1998) "Supramolecular Templates as Porogenes," <i>Adv. Mater.</i> 10(16):1391-1394	
Examiner Signature	/Ana Fortuna/ (09/21/2008)		Date Considered 09/21/2008

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	17	Clark et al. (1999) "Polymerization of Organized Polymer Assemblies," <i>Curr. Opin. Colloid Interface Sci.</i> 4:122-129		
	18	Deng et al. (1998) "Polymerizable Lyotropic Liquid Crystals Containing Transition-Metal and Lanthenide Ions: Architectural Control and Introduction of New Properties into Nanostructured Polymers," <i>J. Am. Chem. Soc.</i> 120(14):3522-3523		
	19	DePierro et al. (2004) "Generation and Control of Polymer Nanostructures Through Photopolymerization in Lyotropic Liquid Crystalline Media," <i>Radtech Rep.</i> :11-21		
	20	Eastoe et al. (2000) "Control Over Phase Curvature Using Mixtures of Polymerizable Surfactants," <i>Chem. Mater.</i> 12:3533-3537		
	21	Gankema et al. (1996), "Gel Template Leaching: An approach to Functional Nanoporous Membranes," <i>Macromol. Symp.</i> , 102, 301.		
	22	Gin et al. (1999) "Polymerizable Liquid Crystals as Building Blocks for Functional, Nanostructured Materials," <i>Synthetic Lett.</i> 10:1509-1522		
	23	Gin et al. (Oct. 2001) "Polymerized Lyotropic Crystal Assemblies for Materials Applications," <i>Acc. Chem. Res.</i> 34:973-980		
	24	Gray et al. (1998) "Polymerizable Lyotropic Liquid Crystals Containing Transition-Metal Ions as Building Blocks for Nanostructured Polymers and Composites," <i>Chem. Mater.</i> 10(7):1827-1832		
	25	Gu et al. (Jun. 2001) "A Nanostructured, Scandium-Containing Polymer for Heterogeneous Lewis Acid Catalysis in Water," <i>Chem. Mater.</i> 13(6):1949-1951		
	26	International Search Report for PCT/US0331429.		
	27	Jung et al. (Feb. 2001) "Polymerization in Lyotropic Liquid-Crystalline Phases of Dioctadecyldimethylammonium Bromide," <i>Colloid Polym. Sci.</i> 279:105-113		
	28	Lee et al. (1995) "Polymerization of Non-Lamellar Assemblies," <i>J. Am. Chem. Soc.</i> 117:5573-5578		
	29	Liu et al. (1998) "Diblock Thin Film with Densely Hexagonally Packed Nanochannels," <i>Adv. Mater.</i> 10:69-		
	30	Liu et al. (2000) "Nanofiltration Membranes Prepared by Direct Microemulsion Copolymerization Using Poly(Ethylene Oxide) Macromonomer as a Polymerizable Surfactant," <i>J. Appl. Polym. Sci.</i> 77:2785-2794		
	31	McGrath, K.M. (1996) "Polymerization of Liquid Crystalline Phases in Binary Surfactant/Water Systems. Part 2. $\omega$ -undecylntrimethylammonium Bromide," <i>Colloid Polym. Sci.</i> 274:399-409		
	32	Miller et al. (1999) "Nanostructured Materials Based on Polymerizable Amphiphiles," <i>Curr. Opin. Colloid Interface Sci.</i> 4:338-347		
	33	Miller et al. (1999) "Heterogeneous Catalysis with Cross-Linked Lyotropic Liquid Crystal Assemblies: Organic Analogues to Zeolites and Mesoporous Sieves," <i>Angew. Chem. Int. Ed.</i> 38(20):3021-3026		

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	34	O'Brien et al. (1998) "Polymerization of Preformed Self-Organized Assemblies," <i>Acc. Chem. Res.</i> 31:861-868	
	35	Paleos, C.M. (1992) "Polymerization of Micelle-Forming Monomers," In: <i>Polymerizations in Organized Media</i> , Gordon and Breach, Philadelphia, pp.183-214	
	36	Pindzola et al. (2000), "Lyotropic Liquid-Crystalline Phase Behavior of Some Alkyltrimethylphosphonium Bromides", <i>Langmuir</i> , 16, 6750-6753.	
	37	Pindzola et al. (2001) "Polymerization of Phosphonium-Diene Based Gemini Surfactants in the Regular Hexagonal and Bi-Continuous Cubic Phases," <i>Abstracts of Papers of the Am. Chem. Soc. 22<sup>nd</sup> National Meeting</i> , August 26-30, Chicago, IL	
	38	Pindzola et al. (April 2001) "Polymerization of a Phosphonium Diene Amphiphile in the Regular Hexagonal Phase with Retention of Microstructure," <i>J. Am. Chem. Soc.</i> 123(19):4617-4618	
	39	Pindzola et al. (Feb. 2003) "Cross-Linked Normal Hexagonal and Bicontinuous Cubic Assemblies via Polymerizable Gemini Amphiphiles," <i>J. Am. Chem. Soc.</i> , 125, 2940-2949.	
	40	Resel et al. (2000) "Structural Properties of Polymerized Lyotropic Liquid Crystal Phases of 3,4,5-Tris(ω-acryloxyalkoxy)benzoate Salts," <i>Macromol. Chem. Phys.</i> 201(11):1128-	
	41	Smith et al. (1997) "Ordered Poly-(p-phenylenevinylene) Matrix Nanocomposites via Lyotropic Liquid-Crystalline Monomers," <i>J. Am. Chem. Soc.</i> 119:4092-4093	
	42	Srisiri et al. (1997) "Polymerization of the Inverted Hexagonal Phase," <i>J. Am. Chem. Soc.</i> 119:4866-4873	
	43	Thundathil et al. (1980) "Polymerization in Lyotropic Crystals. I. Change of Structure During Polymerization," <i>J. Polym. Sci. Polym. Chem. Ed.</i> 18:2629-2640	
	44	Zhou et al. (2005) "Supported Lyotropic Liquid-Crystal Polymer Membranes: Promising Materials for Molecular-Size-Selective Aqueous Nanofiltration," <i>Adv. Mater.</i> 17(15), 1850-1853.	
	45	Zhou et al. (2007) "New Type of Membrane Material for Water Desalination Based on a Cross-Linked Bicontinuous Cubic Lyotropic Liquid Crystal Assembly", <i>J. Am. Chem. Soc.</i> , 129 (31), 9574 -9575	

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